The CHEMIST

FEBRUARY, 1942 VOLUME XIX, No. 2

ANNUAL MEETING AND MEDAL AWARD

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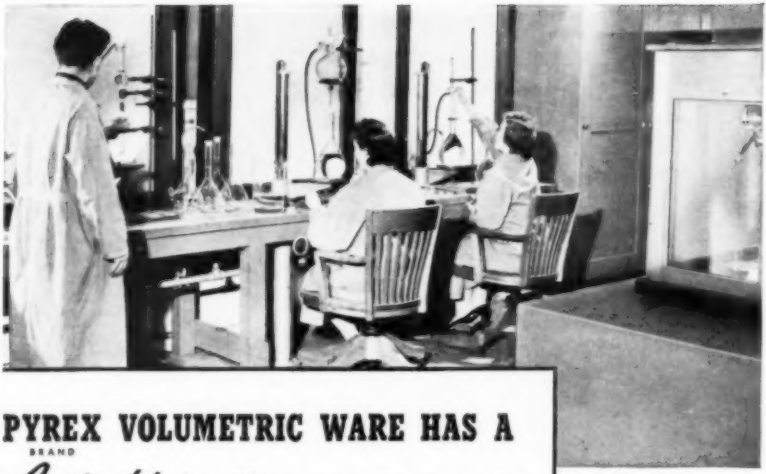

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Appendix

A. Symbols Commonly Used in Engineering Reports
B. Conventions
C. References

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Publication of
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V. F. KIMBALL, *Editor*, 233 Broadway, New York City
VOLUME XIX FEBRUARY, 1942 NUMBER 2

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233 Broadway
New York, N. Y.

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TWENTIETH ANNUAL MEETING of THE AMERICAN INSTITUTE OF CHEMISTS

at

HOTEL CLARIDGE
Atlantic City, N. J.

Friday, May 15th: Registration Begins.

SATURDAY
May 16, 1942

10:00 A.M. Registration.
11:00 A.M. Annual Business Meeting.
12:30 Noon Luncheon meeting of National Council.
2:00 P.M. Symposium, "The Chemical Industry at War."
(Speakers to be announced)
7:00 P.M. Banquet and Presentation of the Medal of THE AMERICAN INSTITUTE OF CHEMISTS to

DR. WILLIAM LLOYD EVANS

Speakers

Dr. H. B. Hass: "Career of the Medalist"
Dr. Harry L. Fisher, Presentation of Medal
Dr. William Lloyd Evans: Acceptance address: "Some Chemical Reactions of the Reducing Sugars in Alkaline Solutions."

THE AMERICAN INSTITUTE OF CHEMISTS
233 Broadway, New York, N. Y.

I shall attend with.....guests, the { ☐ Annual Meeting / ☐ Banquet ($3.00) } of THE AMERICAN INSTITUTE OF CHEMISTS, to be held May 16, 1942, at the Hotel Claridge, Atlantic City, N. J.

.....
Signature

Please make reservations now!

Annual Meeting Headquarters

May 15th and 16th, 1942

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Medal Award to Dr. William Lloyd Evans

THE MEDAL of THE AMERICAN INSTITUTE OF CHEMISTS, presented annually for outstanding service to the science of chemistry and the profession of chemist in America, will be awarded on May 16, 1942, to Dr. William Lloyd Evans, chairman of the department of chemistry and professor emeritus of Ohio State University, Columbus, Ohio.

The award is made in recognition of Dr. Evans' outstanding accomplishments in the field of oxidation of organic compounds, particularly in the oxidation of carbohydrates; and for his contributions to the profession as an educator.

The medal will be presented to Dr. Evans at the Annual Meeting of THE AMERICAN INSTITUTE OF CHEMISTS to be held on May 16, 1942, at the Claridge Hotel, Atlantic City, New Jersey.

Dr. Evans was born in Columbus, Ohio, December 22, 1870. He

holds the B.Sc. and M.Sc. degrees from Ohio State University, and the Ph.D. degree from the University of Chicago. He was assistant professor and associate professor at Ohio State University until 1911, professor of that University from 1928 to 1941, and professor emeritus since 1941.

His field of chemical research has had to do with the oxidation of organic compounds, more especially the oxidation of carbohydrates, and in recent years the chemical behavior of the reducing sugars in alkaline solutions. This latter type of chemical inquiry has necessitated the synthesis of certain theoretically possible sugars which had not been hitherto isolated.

Dr. Evans will speak on "Some Chemical Reactions of the Reducing Sugars in Alkaline Solutions", at the time of the Medal Presentation to him.

Important!

Every member of THE AMERICAN INSTITUTE OF CHEMISTS will want to come to Atlantic City for the 1942 Annual Meeting. Present reservations show that an unusually large number of members and guests plan to take advantage of the beautiful Spring season to combine a visit to the seashore with the benefits to be gained from a timely, informative program, and association with outstanding leaders in the chemical profession.

The afternoon meeting will be devoted to a symposium on "The Chemical Industry at War" with important speakers who will analyze the place of chemical industry in this War as it pertains to different groups working toward a united coördination of production.

Chemists will welcome the opportunity to honor Dr. William Lloyd Evans, who is not only a scientist but an educator of note. He has trained more than forty thousand students of chemistry, and he has personally directed the research work of more than fifty candidates for the Ph.D. degree, many of whom are now holding important positions in education and industry.

Please make reservations now!

Science in Action

Technology is no secret weapon. It is not a mystic or infallible talisman. It is simply the application of the sum of man's knowledge of the physical world to the task of getting a job done with maximum results and a minimum of error. It is science in action. The periphery of that action, expanding at incredible speed over the last decades, now encompasses a leviathan body of knowledge. It may include today a statistician weighing the relationships of scattered economic data, a bull-necked commander of a tank corps with precise knowledge of his ugly monsters of war, as well as a chemist building a new molecular world. Its devices may be a great internal-combustion engine, a new vitamin, an electronic microscope, a new welding technique, or simply a new mathematical formula. If these seem unconnected, put it down as a major failure of education and the press to interpret and link up the vital, working relationships of the technical world in which we live. Before it is even possible to measure U.S. technology as a democratic weapon of total war, it is necessary to understand the order and structure of the technological world.

At the top of the order is pure science—the creative mind exploring for new knowledge to add to man's store. Below this, and the most vital link of all, is development engineering, which takes the germ implanted by the pure scientist and attempts to build it into a functioning, new process, engine, or product. Below this is applied science, working with accepted knowledge for practical, profit-making ends, and its outward visible form is modern industry. Below these are the ranks of skilled technicians, laboratory men, tool- and diemakers, and the like.

The orthodox notion is that these are widely separated interests, working in separate compartments, with only the remotest connections between them—a notion fostered by the press's spotty reporting of scientific affairs and its disproportionate emphasis on the financial grandeur of industry. In reality the above structure is an organic whole, of which the top two members are the brains, industry the body, and technical labor the skilled hands. It doesn't function properly any longer except as a whole. In the fiery test of modern war, failure to see it whole and in perspective is fatal.

For here is the U.S. technical brain, the equal, if not the best, of

any in the world. And here is the U.S. technical plant, the best and most mass-productive of any. The problem again and again is simply the problem of getting brains and plant to work as a coördinated whole. Production is a problem within the larger technological problem. The linkages are everything. A prototype of the wartime technological high command toward which the U.S. is struggling already exists—though merely as a germ—in a few of our highest technological industries, where for the past decade pure science, development engineering, and managerial talent have been merging into a coördinated whole *at the top*. If you follow step by step the growth of U.S. technology into a war technology, the lesson for now and the future is unmistakable.

Excerpt from "A Technological High Command". *Fortune Magazine.*

A. Richard Bliss, Jr.

THE AMERICAN INSTITUTE OF CHEMISTS deeply regrets to announce the death of one of its fellow members, Dr. A. Richard Bliss, Jr. Dr. Bliss was director of The Birmingham Research Laboratories, and professor of Pharmacology and dean of the School of Pharmacology at Howard College, Birmingham, Alabama.

Andrew Richard Bliss, Jr., was born on November 10, 1887, in New York, New York. He received the degree of Ph.G. in 1906 from the New York College of Pharmacology; the Ph.Ch. in 1907 from Columbia University; the Phar. D. from Columbia University in 1908; the B.S. and A.M. degrees (in chemistry) from Howard College, Birmingham, Alabama, and the M.D. from the University of Alabama in 1913.

Dr. Bliss began his career in 1906 as an assistant to Dr. William Mansfield in Microscopy, at Columbia University. Then he held various professorships at colleges and universities. Also, he was a consultant chemist for various concerns, and a lecturer as well as consultant for the Hillman Hospital, the Hillman Hospital's Training School for Nurses in Birmingham, Alabama, and the Grady Hospital Training School for Nurses, Atlanta, Georgia. Before becoming associated with Howard College, Dr. Bliss was professor of Pharmacology and Toxicology at the College of Medicine, University of Tennessee.

From 1917 to 1930 he was associate referee on alkaloids to the associate of the Office of Agricultural Chemistry, Washington, D. C. He served with the United States Army in 1917-1918 as a Lieutenant in the Medical Department.

Dr. Bliss specialized in alkaloids, biologic assaying, and pharmacodynamics. He published many papers dealing with these subjects, and wrote such books as "A Manual of Qualitative Chemical Analysis", "Physics and Chemistry for Nurses" and "Physiology and Pharmacodynamics for Students of Pharmacy."

Among the societies to which he belonged were the American Association for the Advancement of Science, American Academy of Political and Social Science, and The American Chemical Society. He was responsible for the planning and building of many research laboratories, such as the one for the William A. Webster Chemical Company, and the four-story Pharmacology-Pharmacy Building at Reelfoot Lake.

He became a member of THE AMERICAN INSTITUTE OF CHEMISTS in 1923.

Raymond Freas

It it with sincere regret that THE AMERICAN INSTITUTE OF CHEMISTS announces the death of one of its members, Dr. Raymond Freas, professor of organic chemistry at Tulane University, who died on January tenth of this year.

Dr. Raymond Freas was born in York, Pennsylvania in 1886. He obtained the A.B. degree from Wittenberg College in 1906, and the Ph.D. degree from Johns Hopkins University in 1917.

During his lifetime, Professor Freas held chemical positions with The Baltimore Health Department and The White Rock Mineral Springs Company. He was associate professor at the University of Virginia before he assumed his last-held position as the professor of organic chemistry at Tulane University. During the years 1918-1919 and 1921-1922, Dr. Freas served with the Chemical Warfare Service.

Dr. Freas did special research work in organic chemistry, including organic dyes. He belonged to several organizations including The American Chemical Society. He became a member of THE AMERICAN INSTITUTE OF CHEMISTS in 1938.

Joseph L. McEwen

THE AMERICAN INSTITUTE OF CHEMISTS records with deep regret the death of Joseph L. McEwen, chief chemist of Southern Dyestuffs Corporation, Charlotte, North Carolina, who died suddenly last Fall.

Mr. McEwen was born in Monroe, North Carolina, on November 3, 1900. He received the degree of B.S. in chemistry from the University of North Carolina in 1922, and the M.S. in chemistry in 1923. In addition, Mr. McEwen did two years of post-graduate work at Yale University from 1924 to 1926.

The positions held by Joseph L. McEwen during his lifetime were as follows: Head of the Chemistry Department at Atlantic Christian College, 1923 to 1924; assistant professor of chemistry at the University of Miami, 1926 to 1928; laboratory technician for E. I. du Pont de Nemours and Company, 1928 to 1929; manager of the Application Laboratory for National Aniline and Chemical Company, 1929 to 1936, and chief chemist with the Southern Dyestuffs Corporation from 1936 to 1941.

Mr. McEwen specialized in physical chemistry and the studies of the nitrotoluenes. His article "Binary Systems of m-Nitrotoluene with Another Mononitrotoluene", appeared in the *Journal of Industrial and Engineering Chemistry* in 1922. He also had several articles on ultra violet radiations and their effects on dyestuffs, etc. published in the *American Dyestuff Reporter,* from 1934 up until the present.

Mr. McEwen belonged to such organizations as the American Association of Textile Chemists and Colorists, Sigma Xi, Alpha Chi Sigma, and The Charlotte Writers Club. His hobby was herpetology, and he gave many lectures on this subject before clubs and other groups.

He became a member of THE AMERICAN INSTITUTE OF CHEMISTS in 1938.

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February Meeting

The 187th meeting of the National Council of The American Institute of Chemists was held on Tuesday, February 17, 1942, at The Chemists' Club, 52 East 41st Street, New York, N. Y., at 6:30 p.m.

Dr. Harry L. Fisher presided. The following officers and councilors were present: Messrs: E. R. Allen, S. R. Brinkley, H. L. Fisher, C. N. Frey, M. L. Hamlin, W. J. Murphy, H. S. Neiman, F. D. Snell, M. Toch, W. D. Turner, and A. H. Warth. Mr. M. R. Bhagwat, Dr. Donald Price, Mr. A. Cressy Morrison and Miss V. F. Kimball were present.

The minutes of the previous meeting were approved.

The Treasurer's report showing cash on hand of $808.18, savings and defense bonds totaling $4001.92, with no bills payable, was read and accepted.

A letter from the Washington Chapter was read, which requested approval of the following colleges to receive student medal awards: The American University, Catholic University of America, George Washington University, Georgetown University, Howard University, The Johns-Hopkins University, University of Maryland, and the University of Virginia. Upon motion made and seconded, these institutions were approved by the Council.

The Secretary read a letter from the National Defense Research Committee in reply to the Institute's offer of assistance to the government in this time of emergency.

The report of the Committee on Ethics was submitted by the Chairman of the Committee and accepted by the Council.

A letter from Major Earl R. Harrouff was read.

The following new members were elected:

FELLOWS:

De Castro, Arthur
(1942), *Chief Chemist,* Analytical Research Laboratory, National Oil Products Company, Harrison, N. J.

McIntyre, Joseph D.
(1942), *President,* Dr. D. Jayne and Son, Inc., Delaware Avenue and Vine Street, Philadelphia, Penna.

Segessemann, Ernest
(1942), *Research Chemist,* National Oil Products Company, Harrison, N. J.

Tonkin, William H.
(1942), *Chemist,* Standard Brands, Inc., 2655 West 19th Street, Chicago, Illinois.

Yeck, Robert P.
(1942), *Research Analytical Chemist,* Research Department, American Smelting and Refining Company, Perth Amboy, N. J.

ASSOCIATES:

Schlenker, Henry W.
(1942), *Chemist,* Woburn Degreasing Company of New Jersey, 1200 Harrison Avenue, Kearny, N. J.

Whitcomb, Gordon P.
(1942), *Development of New Products,* Calco Chemical Division of American Cyanamid Company, Bound Brook, N. J.

JUNIOR:

Williams, Dorothy B.
(1942), *Junior Chemist,* Hammond Paint and Chemical Company, Beacon, New York.

Upon motion made and seconded, Arthur F. Butcosk was raised from Junior to Associate, and Edward T. McBride was raised from Associate to Fellow.

The place of the Annual Meeting was discussed and the following committee was appointed to consider it: Dr. W. D. Turner, Mr. W. J. Murphy, and Mr. Howard S. Neiman.

The request of the Niagara Chapter for a speaker on Licensing was referred to Dr. Frey.

Mr. Bhagwat reported that Chemist Advisory Council has been temporarily suspended, but that several debts are outstanding. Upon motion made and seconded, the Council empowered the Treasurer to pay up to $275.00 to Chemist Advisory Council as a clean-up fund to cover outstanding debts; and the Council requested the Secretary of Chemist Advisory Council to submit a statement showing how this money is expended.

Dr. Hamlin reported the licensing activities of the New York Chapter. A discussion on licensing followed.

There being no further business, adjournment was taken.

Applications for Membership

Final action will be taken by the National Council, at its next meeting, on the following applications:

For Fellows

Bailey, Paul F.
Assistant Professor of Chemistry, Loyola University, New Orleans, La.

Bond, Rolston L.
Research Chemist, National Oil Products Company, Harrison, N. J.

Burry, H. Maxwell
Owner and Director, Long Island Analytical Laboratory, Mineola, N. Y.

Coutinho, Henri
Technical Director and Chief Chemist, Pinaud, Inc., New York, N. Y.

Heim, Oskar K. Walter
Research Chemist, United Merchants and Manufacturing Management Corporation, New York, N. Y.

Lenz, William J.
Research and Consulting Chemist, Lenz Industrial Testing Laboratories, Louisville, Ky.

Mabardie, Alexander A.
Vitamin Chemist, Vick Chemical Company, New York, N. Y.

Pickering, Harry S.
Vice-president and Technical Director, Chemical Manufacturers of Florida, Inc., North Miami, Fla.

Stobaeus, Frank H.
515 Grove Terrace, South Orange, New Jersey.

Van Heuckeroth, Arthur William
Captain, Corps of Engineers, U. S. Army Camouflage Section, Engineer Board, Fort Belvoir, Va.

Wettach, William
Managing Director, Industrial Paint Company, Haysville, Penna.

For Junior

Ferro, Patrick V.
Assistant Chief Chemist, Eimer and Amend, New York, N. Y.

To be raised from Associate to Fellow

Cataldo, Joseph R.
Consulting Chemist, Industrial Consulting Laboratories, Inc., New York, New York.

CHAPTERS

New York

Chairman, Donald Price *Vice-chairman,* Elmore H. Northey

Secretary-treasurer, Milton Burton

New York University

New York, N. Y.

Council Representative, Marston L. Hamlin

The New York Chapter met February thirteenth at The Chemists' Club, to discuss the subject of licensure. Dr. Foster D. Snell served as discussion leader. Other speakers were Dr. William H. Gardner, Dr. Lincoln T. Work, Mr. Stephen L. Tyler, and Dr. John E. Schott. The meeting was well attended, and the discussion from the floor inspiring and enthusiastic. A resolution was passed requesting the National Council to make available an appropriation to carry on the work necessary to obtain passage of a licensing bill by the New York State Legislature.

A future issue of THE CHEMIST will summarize the advantages of licensure and the objections to it, in response to requests from chemists who are not familiar with what is meant by "licensure of chemists".

Niagara

Chairman, L. M. Lawton
Vice-Chairman, George W. Fiero
Secretary, Margaret C. Swisher
Department of Chemistry
University of Buffalo
Buffalo, New York
Council Representative, Arthur W. Burwell
Carl H. Rasch, *Alternate*

A meeting of the Niagara Chapter of the AMERICAN INSTITUTE OF CHEMISTS was held at the University of Buffalo, Friday evening, February twentieth.

Mr. Raymond Yates discussed "Inventions and the War". He predicted three inventions which would greatly affect post-war conditions: Electron Microscope, Cyclotron, and Television.

The function of the Naval Consulting Board of World War I, which considered 130,000 suggestions, was discussed together with experiences dealing with various types of so-called inventions.

The National Inventors Council is considering problems for the present war. Mr. Yates mentioned some of his own experiences with aviation mechanics.

The Liberty Bank of Buffalo, and numerous other banks throughout the country, have listed "needed inventions" for the emergency.

Pennsylvania

Chairman, Edward L. Haenisch *Vice-chairman*, J. M. McIlvain
Secretary-treasurer, Clinton W. MacMullen
Rohm and Haas Company
Philadelphia, Penna.
Council Representative, Gilbert E. Seil
News Reporter to THE CHEMIST, Kenneth A. Shull

A meeting of the Pennsylvania Chapter was held at Houston Hall on the evening of Tuesday, January twenty-seventh.

The dinner speaker was Dr. William H. Gardner, Research Professor of Chemical Engineering at Polytechnic Institute of Brooklyn, who discussed many of the problems which, after the war, will have a marked effect upon the chemical profession.

At the present time there are many persons taking highly specialized defense training courses in chemistry and chemical engineering who, after "gradution" will call themselves professional chemists, and will attempt to "practice" as such. This is one problem which will have to be given serious thought.

Then there is the question of unions. Increased pressure is being brought to bear upon chemists both by the A. F. of L. and by the C. I. O. And

this will continue as long as the professional status of chemists is not legalized.

It is of paramount importance that the term chemist be defined. This can be brought about through closer collaboration of the various professional societies, who, in turn, can insist upon action by the various state legislatures.

An educational program should be inaugurated, one designed to build up the professional attitude—to make chemists think in professional terms.

The main speaker of the evening was Dr. John White of the Esso Laboratories who presented "Infra Red for Everyone".

Infra red rays are heat rays, or long wave length light rays which lie beyond the red end of the visible spectrum. They cover the range from about 0.8u to 200u.

When subjected to infra red radiations a large number of organic molecules present a spectrum characteristic of that molecule. In addition certain groupings, such as O-H, C=N, and C=O give characteristic bands irrespective of the rest of the molecule.

Inorganic compounds, however, do not lend themselves so well to infra red spectroscopy as do organic compounds. This is due largely to the fact that the universal solvent, water, is nearly opaque to infra red rays.

The instrument used by Dr. White operates in brief as follows: A hot carborundum bar serves as a source of infra red radiations. These pass through an absorption cell containing the substance being analyzed and are focused by mirrors onto a narrow slip. The resulting parallel rays pass into a Littrow mounting of a rock salt prism and are focused onto a thermopile. The deflections of a highly sensitive galvanometer serve to measure the amount of absorption since photographic plates are not sensitive to wave lengths longer than 1.3u.

Dr. White showed graphs which illustrated some of the work which he and his associates have been carrying out in the Esso Laboratories, as well as other applications of infra red spectroscopy.

Washington

President, Ralph B. Deemer

Vice-president, L. F. Rader, Jr. *Treasurer,* L. R. Heiss

Secretary, Ernest J. Umberger

207 Albany Avenue, Takoma Park, Maryland

News Reporter to THE CHEMIST, T. H. Tremearne

Council Representative, Albin H. Warth

The appointment of Hiram T. Nones as acting chief and consultant for the Textile Staff recently established by the Bureau of Foreign and Domestic Commerce in the Division of Industrial Economy was announced recently by Carroll L. Wilson, bureau director.

Mr. Nones has been identified with textile trade affairs in the Government's service for the past seventeen years. Previous to that he was employed in the New York market where he gained special experience in cotton piece goods, knitwear, and rayon yarn converting.

BOOKS

PROTECTIVE AND DECORATIVE COATINGS. Vol. I. (Raw Materials for Varnishes and Vehicles). Joseph J. Mattiello. Editor. *John Wiley and Sons, Inc., and Chapman and Hall Ltd. (London).* 1941. 6" x 9". 819 pp. $6.00.

This is the first of three volumes. It covers the broad field of raw materials such as the oils, resins, driers, thinners, solvents, natural minerals and ethers, and it is compiled by a staff of specialists in these respective branches of the industry. It is also understood that more than fifty specialists are expected to contribute from their experience in completing these publications, the major purpose of which is "to give basic data" on the general subject of paints, varnishes, lacquers, and ink.

Although a comprehensive treatise, it is made up of a series of very instructive and compact essays. The introductory chapter gives a very logical and factual summary of historical nature, showing the growth, present developments and future trends of the industry. Under the section of drying oils, cashew nutshell, oiticica, dehydrated castor, and synthetic drying oils have received major prominence. However, linseed, tung, and other important oils are included in the general group in a chapter heading "Drying Oils". Resins, as one could expect hold the center of interest and almost all those of importance have been adequately covered. The discussion on the remaining raw materials and driers, solvents, etc. is also equally illuminating. At the end of each chapter or essay, one will find a sufficient number of references to published literature, which will no doubt be helpful to those interested in securing additional information on specific subjects.

Here is an excellent book giving authentic data and hence it can be used as a source for securing general information on chemistry and technology of the raw materials above indicated. The book is highly recommended to all who are connected with or interested in the technical branch of paint, varnish, lacquers, and inks.

THE CONDENSED CHEMICAL DICTIONARY. 3rd Edition. *Reinhold Publishing Corporation.* 1942. 6" x 9". 755 pp. $12.00.

This publication has a much wider scope than is indicated in its title, which would seem to assume that its contents are directed to the science of chemistry as applied to chemical compounds, without regard to any of their useful properties or their commercial uses, which is the general form of most so-called chemical dictionaries. The subject matter of this book is extremely broad and includes explosives, plastics, synthetic rubbers, synthetic fibers, organic solvents, poison gases, petroleum products, synthetic resins, vitamins, metals and alloys, and new drugs, the members of each such groups being fully described as to their formulas, color, odor, taste, specific gravity, melting point, boiling point, solubility and derivation, all of which properties are of a chemical or physical character.

In addition to the above valuable information, each of the mentioned compounds is described as to its method of manufacture, packaging, and grades, specifications, uses and applications, fire and poison hazards, and railroad shipping regulations, all of which information is of great value to those interested

in commercializing chemicals. It will thus be seen that each chemical is considered from both its scientific aspects and its commercialized attributes. Among other valuable features of this dictionary are the inclusion of synonyms of the various chemicals and an alphabetical arrangement of the chemicals under their trade mark and commercial designations. This third edition of the *Condensed Dictionary* is completely revised and greatly enlarged over the previous second edition, which was published in 1930; and over six thousand new items have been added, making a total of over eighteen thousand items. The advance in chemistry has been rapid during the last ten years, and consequently many new chemical compounds have been discovered and placed upon the market, which appear in this present edition.

The breadth and scope of this dictionary makes it a most valuable adjunct to the library of every chemist and everyone interested in chemistry, whether from a scientific, manufacturing, or commercial standpoint. The book is well-bound and thumb indexed for convenience.

ANALYTICAL CHEMISTRY OF INDUSTRIAL POISONS, HAZARDS, AND SOLVENTS. By Morris B. Jacobs. *Interscience Publishers, Inc.* 1941. 6" x 9". 661 pp. $7.00.

This is the first volume of a series of monographs on analytical chemistry being published by Interscience Publishers. The editorial board consists of Beverly L. Clarke, F.A.I.C., I. M. Kolthoff, and Hobart H. Willard. Dr. Jacobs, the author of this volume, was formerly with the Food, Drug and Insecticide Administration of the U. S. Department of Agriculture, the Department of Health of the City of New York, and also formerly Lieutenant, U. S. Chemical Warfare Service Reserve.

This book contains XIX Chapters, entitled as follows: I. Industrial Hygiene and Industrial Poisons; II. Sampling; III. Measurement of Gas Volume and Quantity; IV. Absorbers and Absorbents; V. The Chemical and Microscopic Estimation of Dust; VI. The Chemical and Microscopic Estimation of Silica; VII. The Dangerous Metals: Lead, Mercury and Arsenic; VIII. Other Harmful Metals; IX. The Common Poisonous Compounds of Sulfur, Phosphorus and Nitrogen; Oxygen and Ozone; X. The Common Poisonous Compounds of the Halogens; XI. Carbon Monoxide, Carbon Dioxide, Hydrocyanic Acid and Cyanogen; XII. General Methods for the Determination of Combustible and Solvent Vapors; XIII. Paraffin and Unsaturated Aliphatic Hydrocarbons; XIV. Benzene and the Aromatic Hydrocarbons; XV. Halogenated Hydrocarbons; XVI. Alcohols, Glycols and Alcohol-Ethers, and Ethers; XVII. Acids, Esters, Aldehydes and Ketones; XVIII. Phenolic Compounds, Aniline and Derivatives; and XIX. Chemical Warfare Agents. An appendix contains fifteen useful tables, followed by author and subject indices. Numerous references add to the value of this book.

The chemical aspects of industrial hygiene are covered and not only are the various methods of chemical analysis for the different compounds given, but in addition the physiological response and toxicity are included. Now, when our industrial program covers such an expansion of chemical and explosive manufacture, with the attendant increase of industrial hazards, those charged with the prevention of these hazards will find this excellent text

most useful. Those interested in chemical warfare agents either in chemical warfare or in civilian defense will find the final chapter of this book a valuable reference. This volume will also be useful to industry, insurance companies, researchers, toxicologists, and physicians.

INORGANIC CHEMICAL TECHNOLOGY. By W. L. Badger and E. M. Baker. *McGraw-Hill Book Company, Inc.* 1941. 6" x 9". 237 pp. Price $2.50.

This is the second edition of this book which was first published in 1928, as a textbook on the important inorganic chemicals usually known as heavy chemicals. One will find a brief yet fairly comprehensive presentation of the chemical technology of common salt; sulfuric, nitric, hydrochloric, and phosphoric acids; alkalies—sodium carbonate and caustic soda (which now includes chlorine). There is also a chapter covering a dozen or more miscellaneous inorganic salts. Literature references and problems for solution at the conclusion of the chapters will no doubt prove quite helpful to students desiring more familiarity with the subject.

Chapters on hydrochloric, and phosphoric, and soda ash have been rewritten. In most of the cases more recent information on the present procedure of manufacture is substituted for old or obsolete methods. This edition, therefore, is a decided improvement on the original one and hence it is a welcome substitution in the Chemical Engineering Series.

NEW YORK COMMITTEE PROTESTS EMPLOYMENT DISCRIMINATION IN DEFENSE INDUSTRIES

The Committee on Discrimination in Employment of New York State has appealed to defense employers not to discriminate against aliens when hiring employees for defense jobs. "There has been confused discussion implying legal obstacles to employment of foreign-born citizens, with evidence of dismissals of citizens of foreign birth." Quotations were given from the recent appeals of the President, and from Attorney General Biddle, against job discrimination. "Federal authorities do regulate the employment of aliens, but only in 'secret', 'confidential' or 'restricted' contracts. But even here the Federal agency gives permission where this is applied for and there is no doubt of loyalty."

The Committee is "adding a field staff to increase the pressure of persuasion on employers and others who persist in unfair hiring prejudicial to Negroes, Jews, people of Italian and German origin and other groups." The Committee is sponsoring legislation in New York State which will make it unlawful for an employment agency to discriminate on account of race, creed, color or national origin against any person seeking employment by a public utility or in a defense industry and making the records of employment agencies available for inspection.

1942 Herty Award

Dr. Townes R. Leigh, F.A.I.C., of the University of Florida, will receive the 1942 Charles Herty award for outstanding work in the field of chemistry. Established in 1933 in honor of Dr. Charles H. Herty, the award is given annually by the Chemistry Department, headed by Dr. L. C. Lindsley, at Georgia State College for Women.

Dr. Leigh, dean of the college of Arts and Sciences at the University of Florida, was named for the award by a committee of the Georgia Section of the American Chemical Society. The award will be conferred during the Herty Day ceremonies, scheduled for May second at Georgia State College for Women.

The committee, in selecting Dr. Leigh as the winner of the 10th Herty Award, pointed out that he has served as an "inspirational teacher of chemistry for about thirty-eight years", is a "forceful factor in the development of the natural resources of Florida," is an "able administrator and broad-visioned builder in his profession," is a "practical inventor and investigator," and is an "interesting, instructive and dynamic speaker and writer."

Famous as the inventor of the Leigh Fog Screen for the protection of vessels against submarines, Dr. Leigh is a Lieutenant-Colonel in Chemical Warfare Reserve, having served the government during the last war as a "dollar-a-year-man".

M. L. Crossley, F.A.I.C., discussed "Recent Advances in Chemotherapy" before the Lexington, Kentucky, section of the American Chemical Society, on March fifth. On March ninth, Dr. Crossley spoke to the Purdue Section on "The Role of Chemistry in Combating Infectious Diseases"; and on March thirteenth, he addressed the Indiana Section on "Sulfadrugs".

H. Bennett, F.A.I.C., of Crowley & Bennett, technical consultants of Chicago and Brooklyn, is leaving by plane for Cuba, Mexico and Guatemala. He will visit various chemists, educators, public officials and industrialists there in connection with native industries and their relations with the United States during the war. Mr. Bennett will return on or about May twenty-second.

Laucks Laboratories, Inc., Seattle, Washington, announce that they have installed apparatus to test the explosibility of various dusts, to serve the needs of manufacturers who are expanding their facilities to handle the many new products required by the war emergency.

"In an emergency like the present, every resource of the nation must be utilized to the fullest extent to strengthen our defenses. Today, more than ever before, this means the adoption and adaptation to production of the latest and best discoveries of science. The problems of increased efficiency in extraordinary manufactures, as in ordinary ones, find solutions in the manifold applications of the results of scientific research."

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Former vice-president and general manager of petroleum marketing company, F.A.I.C. with mechanical engineering and extensive organic chemical research training desires new connection. Extensive knowledge of petroleum refining, transportation, sales and advertising; Owns twelve patents and six applications. Experienced in construction; good general knowledge of chemical industry; able to handle work requiring responsibility and business experience. Age 49, married, exempt from military service; location immaterial, available immediately. Please reply to Box 15, THE CHEMIST.

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About a year ago the Federal Civil Service Commission began a recruiting drive for technologists. The number of persons on the employment lists now established is not sufficient for today's wartime needs. Accordingly, the Commission has recently reissued the announcement of these opportunities for Government employment with slightly modified requirements. Salaries for the positions range from $2,000 to $5,600 a year. Applications may be filed until further notice with the Commission's Washington office.

By technologist the Commission means a person experienced in "the necessary production, engineering, and scientific research work essential for the successful operation of an industrial plant, where such plant operation is based upon a thorough and expert knowledge of a branch of an applied science", such as explosives, fuels, plastics, rubber, minerals, or textiles.

For the Junior positions ($2,000 a year), applicants will no longer have to take a written test, and, as before, no written test will be given for the higher positions. The maximum age limit for all the grades has been raised to 60 years.

Copies of the announcement (No. 188), and the forms for applying, may be obtained at first- and second-class post offices, or from the Civil Service Commission, Washington, D. C.

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Forms for this purpose appear on pages 45 and 46.

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By David Pierce, Chemical Engineer for Research Division, Rohm and Haas Co., 232 pages, 6" x 9", 56 illustrations, $2.50.

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